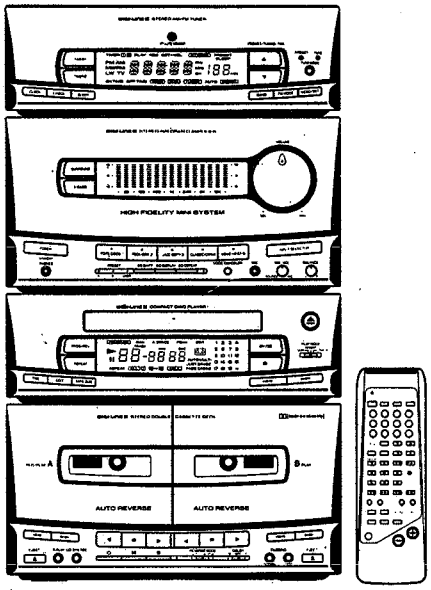
OPERATING INSTRUCTIONS
MANUEL D'INSTALLATION ET D'UTILISATION
BEDIENUNGSANLEITUNG
MANUALE D'ISTRUZIONI

SHER-00384



P-77R

- ☐ *STEREO INTEGRATED AMPLIFIER*
- ☐ *STEREO FM/MW/LW TUNER & TIMER*
- ☐ *COMPACT DISC PLAYER*
- ☐ *STEREO DOUBLE CASSETTE DECK*
- ☐ *AMPLIFICATEUR STÉRÉO INTEGRÉE*
- ☐ *TUNER NUMÉRIQUE OPTIMUM*
- ☐ *LECTEUR DE DISQUE COMPACT*
- ☐ *MAGNÉTO CASSETTE STÉRÉO A DEUX PLATINES*
- ☐ *INTEGRIERTER STEREOVERSTÄRKER*
- ☐ *FM/MW/LW – STEREO TUNER, TIMER*
- ☐ *COMPACT DISC – SPIELER*
- ☐ *STEREO – DOPPEL – CASSETTEDECK*
- ☐ *AMPLIFICATORE*
- ☐ *SINTONIZZATORE*
- ☐ *RIPRODUTTORE DI COMPACT DISC*
- ☐ *REGISTRATORE DOPPIA CASSETTA*

Sherwood

TM
Live Performance Sound

384

Unpacking and Installation

Congratulations on Your Purchase!

Your new high fidelity Integrated Stereo System is designed to deliver maximum enjoyment and years of trouble free service. Please take a few moments to read this manual thoroughly. It will explain the features and operation of your System and help insure a trouble free installation.
Please unpack your System carefully. We recommend that you save the carton and packing material. They will be helpful should you ever need to move your unit and may be required if you ever need to return it for service. Your System is designed to be placed in horizontal position and it is important to allow at least two inches of space behind your unit for adequate ventilation and cabling convenience. To avoid early damage, never place the unit in direct sunlight, in excessively humid or dusty location, in very low or high temperature (over 100°F; 40°C or below 40°F; 5°C) or near sources of strong magnetic fields. Connect your complementary components as illustrated in the following section.

FOR YOUR SAFETY

To ensure safe operation the three-pin plug supplied must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring.

Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired extension cords are a major cause of fatalities.

The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective earthing of the power point, consult a qualified electrician.

CLASS 1
LASER PRODUCT

CAUTION
Invisible laser radiation when open the unit. Do not stare into beam.

CAUTION: USE OF ANY CONTROLS, ADJUSTMENTS, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.

DO NOT REMOVE COVER (OR BACK).

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Caution: To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be inserted to prevent blade exposure.

Attention: Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Read this Before Operating Your Unit

FOR THE U.S.A. AND CANADA 120V

FOR YOUR SAFETY

Units shipped to the U.S.A and Canada are designed for operation on 120 volts AC only.

Safety precaution for a Polarized AC plug. However, some products may be supplied with a non-polarized plug.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZE) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

FOR THE UNITED KINGDOM 240V

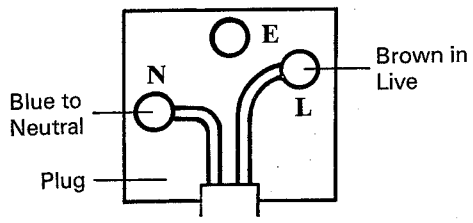
FOR YOUR SAFETY

Units shipped to the U.K. are designed for operation on 240 volts AC only.

The mains plug must be removed from the wall socket prior to any internal examination.

The wires in this main lead are coloured in accordance with the following code:
Blue . . . . . Neutral
Brown . . . . . Live

The wires in this main lead must be connected to the terminals in the plug as follows:
Wire colour
Blue . . . . . N or Black
Brown . . . . . L or Red



NOTES:

1. If a 13-amp plug is used, this must be fitted with a 3-amp fuse.
2. If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal.

"FOR ADDED SAFETY, WHEN CONNECTING THE AC MAINS LEAD TO A 3 PIN PLUG PLEASE USE A 5A FUSE APPROVED BY ASTA TO BS1362, I.E. CARRIES THE ASA MARK."

FOR AUSTRALIA AND EUROPE 220V/230V/240V

FOR YOUR SAFETY

Units shipped to Australia are designed for operation on 240V AC only.
To ensure safe operation the three-pin plug supplied must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring. Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired extension cords are a major cause of fatalities. The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective earthing of the power point, consult a qualified electrician.
Units shipped to Europe are designed for operation on 220V/230V AC only.

FOR OTHER COUNTRIES . . . 120V/220V

FOR YOUR SAFETY

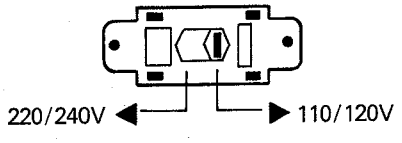
Units shipped to countries other than the above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC VOLTAGE SELECTION

This unit operates on 110-120 volts AC. The AC voltage selector switch Type A on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

AC voltage selector switch

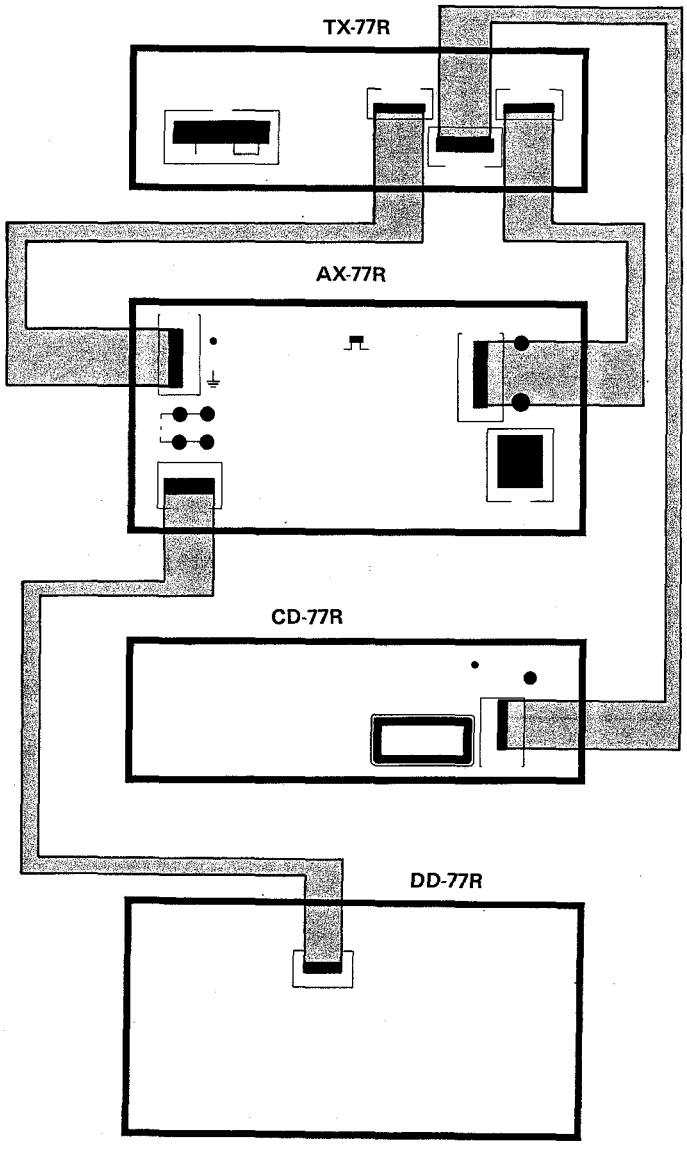
Type A



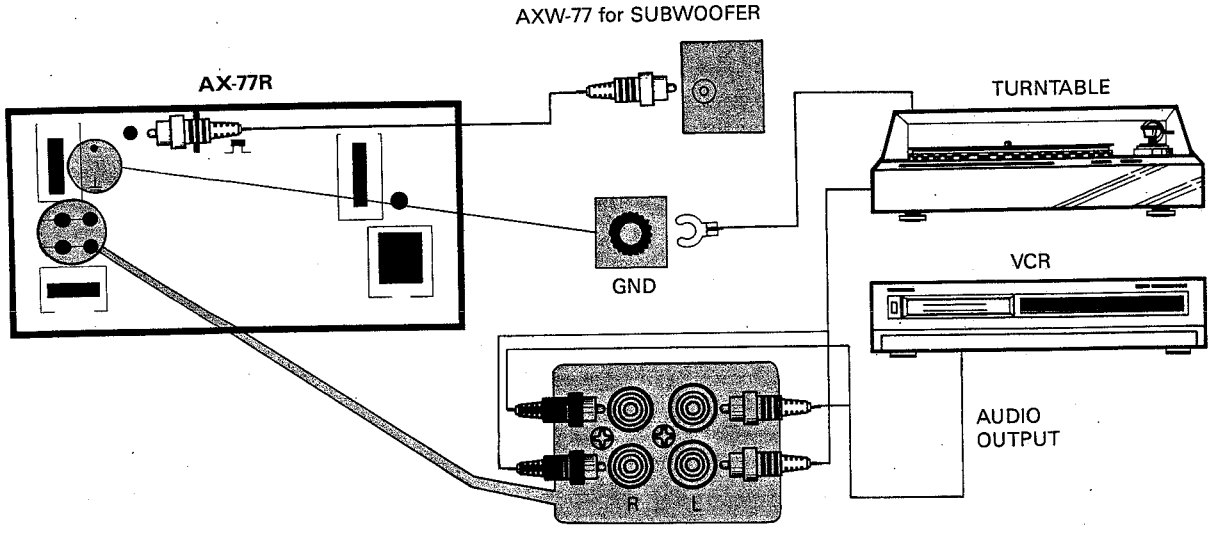
Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

System Connections

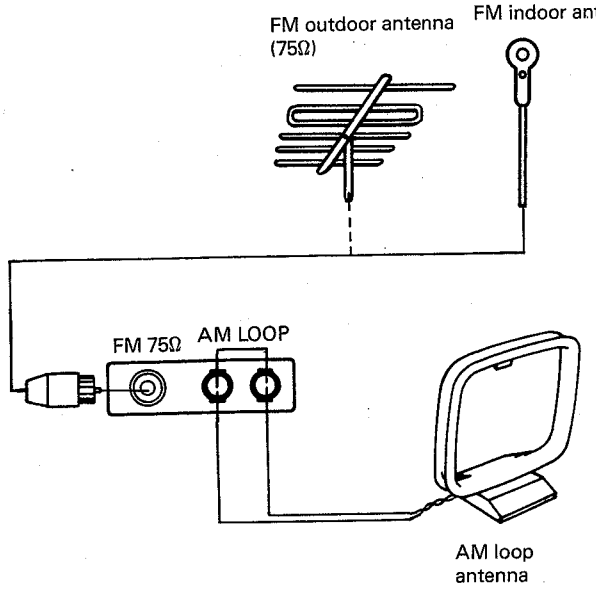
* Do not plug the power cord into the AC outlet when plugging and unplugging connection cords.
* Connect each cord between the related system components firmly and correctly. If not, it can cause loss of sound, noise, malfunctions or damage to the unit.
* Leave a sufficient interval among antenna and connection cords. If not, it can cause noise.
* When the unit doesn't work because of the causes such as power failure, plug the power cord again.
* In case of installing uprightly, place the system components in sequence below to minimize interference between components.



■ OTHER EQUIPMENTS

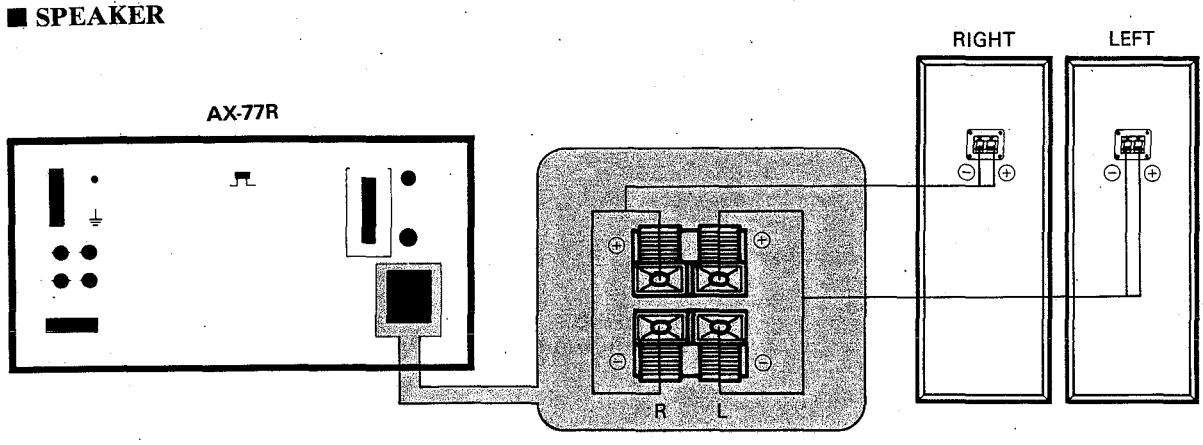


■ ANTENNAS



* Set the AM loop antenna to a direction for the best reception.
* If the reception is poor with AM loop antenna, AM outdoor antenna can be used without disconnecting the AM loop antenna.
* If sound quality is poor with FM indoor antenna, connect FM outdoor antenna instead of FM indoor antenna.

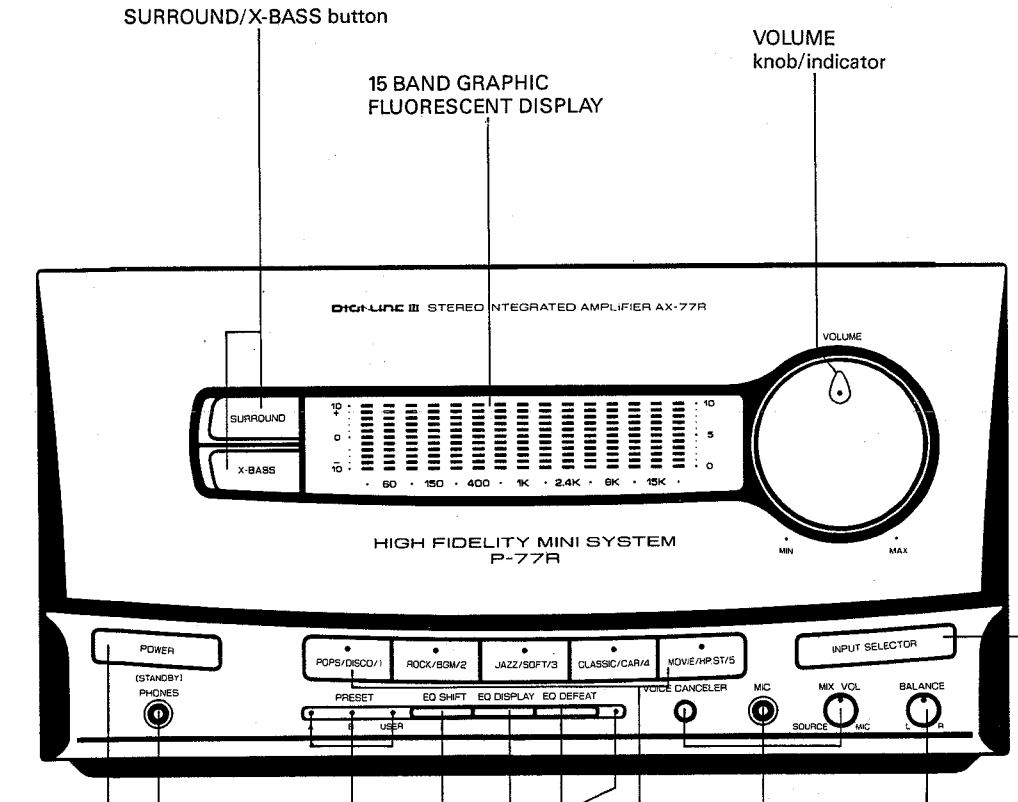
■ SPEAKER



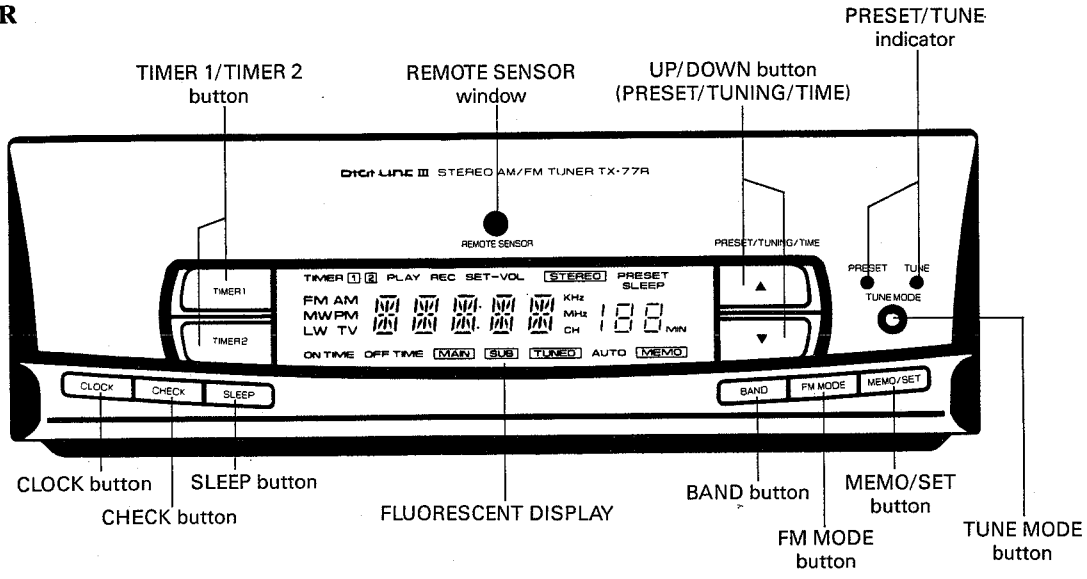
* Be sure to use 6-16 ohm speakers for AX-77R.
* Connect the speaker cords correctly in accordance with channel (RIGHT and LEFT) and polarity (⊕ and ⊖).

Controls and Indicators

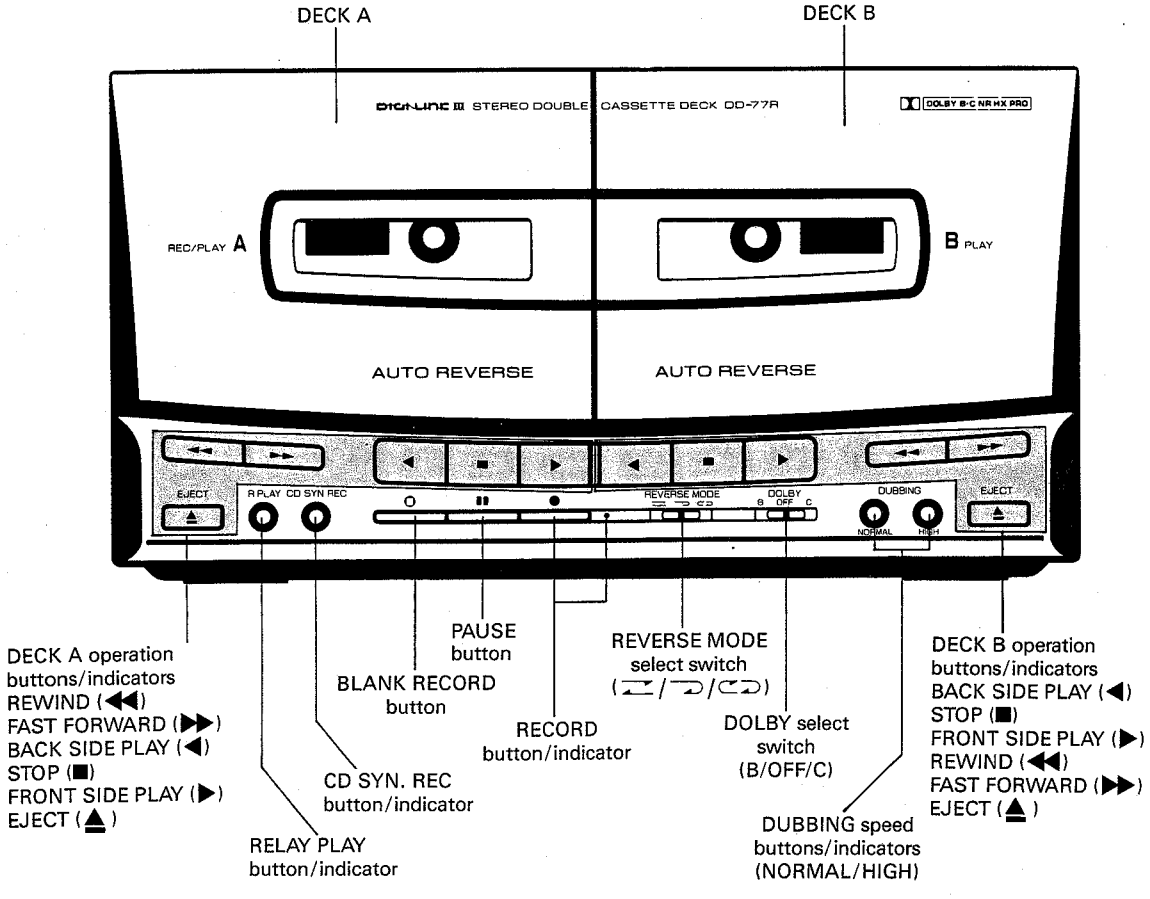
■ AMPLIFIER



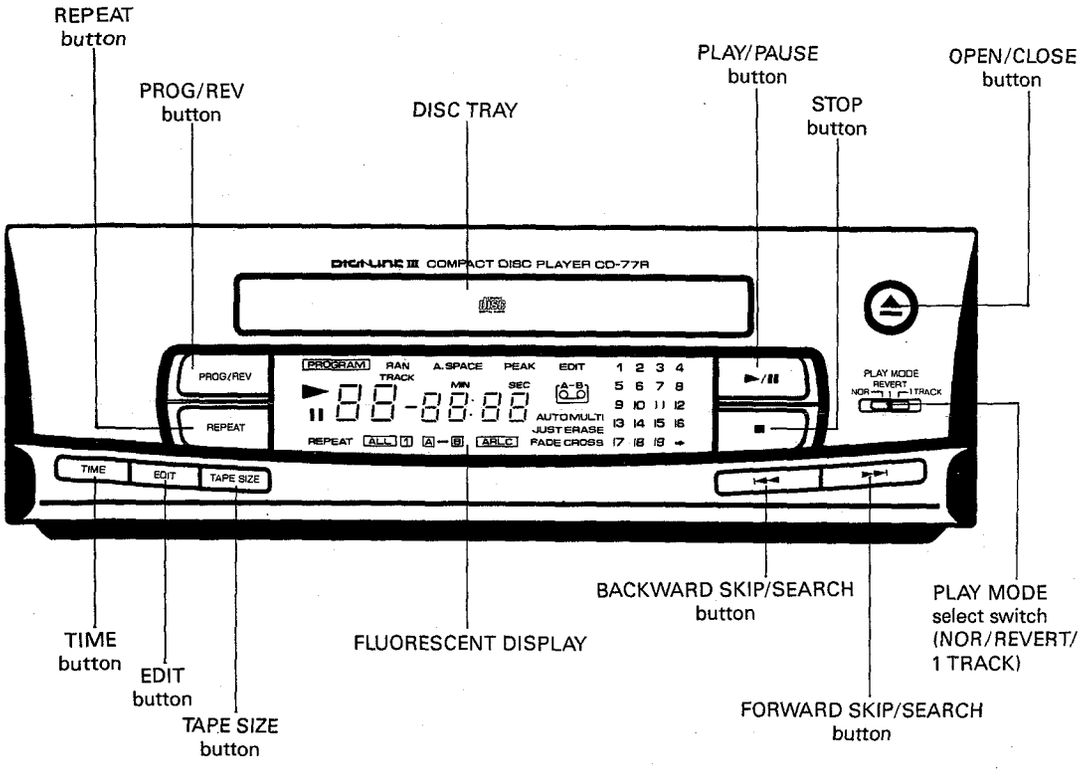
■ TUNER



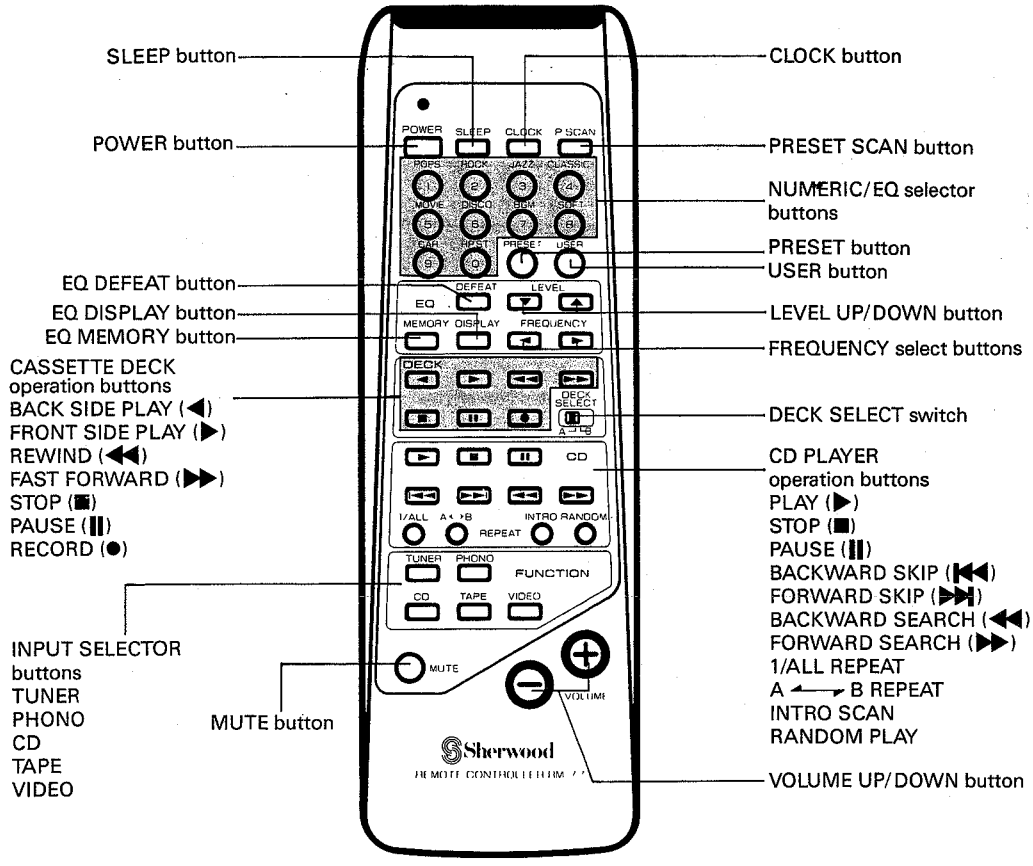
■ CASSETTE DECK



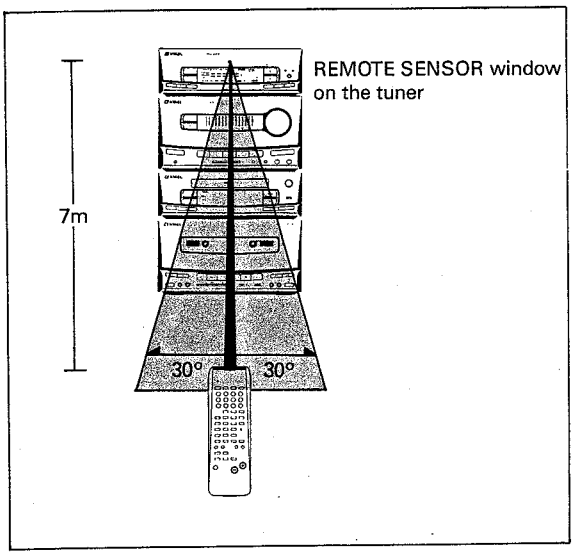
■ COMPACT DISC PLAYER



■ REMOTE CONTROL UNIT

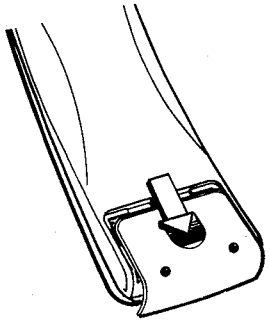


■ REMOTE CONTROL OPERATION RANGE

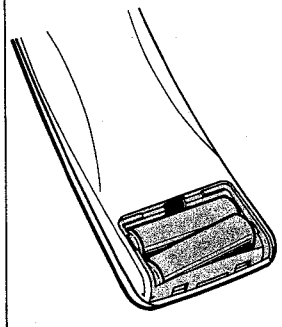


■ LOADING BATTERIES

1. Remove the cover

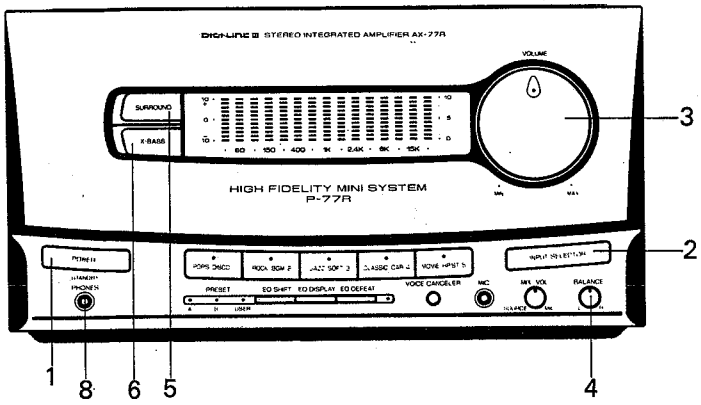


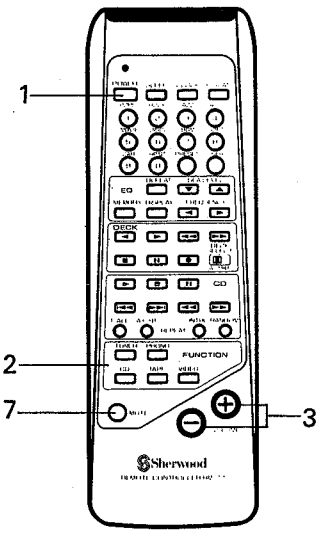
2. Load batteries



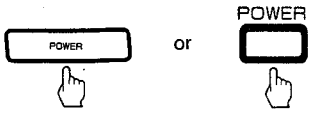
Load two UM-3, AA (R6) size (1.5V) batteries as shown by the polarity marking.

Operation of the Amplifier

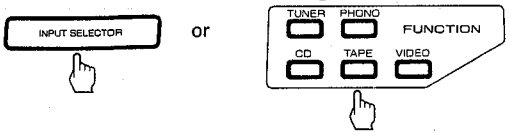




1. Press the POWER button to ON.



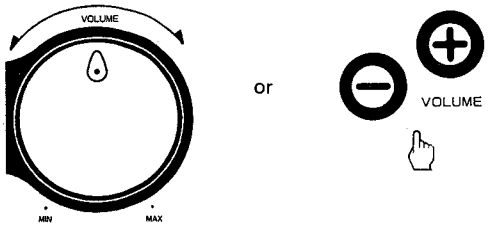
2. Select the desired source among TUNER, CD, TAPE, VIDEO and PHONO.



- Each time the INPUT SELECTOR button on the main unit, the audio sources are changed as follows.

→TUNER→CD→TAPE→VIDEO→PHONO

3. Adjust the volume.



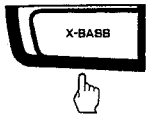
4. Adjust the volume balanced of left and right speakers or headphones.

BALANCE knob can be replaced by ECHO LEVEL knob as option.

5. Press the SURROUND button to enjoy surround effect.

- Press again to cancel.

6. Press the X-BASS button to enjoy the boosted bass.



- Press again to cancel.

* When the power cord of this system is plugged into an AC outlet, if the POWER button is pressed to OFF, the unit switches to the stand by mode that is supplying a small amount of current for the unit to back up the memorized contents.
* If the electricity fails or the power cord of this system is leaved unplugged over 15 days, the memorized contents are all cleared.

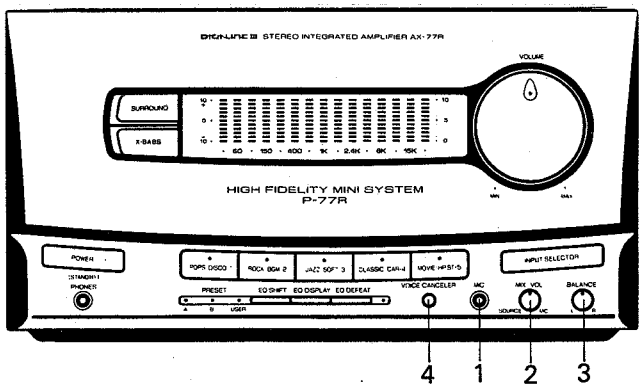
7. Press the MUTE button to decrease the volume.

- Press again to cancel.

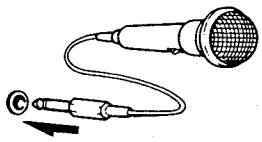
8. Insert the headphones plug into the PHONES jack.

* When the headphones are plugged in, sound from the speakers is cut off.

■ OPERATION OF THE OPTIONS



1. Plug the microphone into the MIC jack.



- Sound input with a microphone can be mixed with the sound of a music source selected with the INPUT SELECTOR button(s).

2. Adjust the balance between the microphone signal and source signal with the MIXING VOLUME knob.

- If it is necessary to output the microphone sound alone, select an input to which no component is connected, or stop the playback of the selected source.

3. Adjust the echo level of the microphone sound.

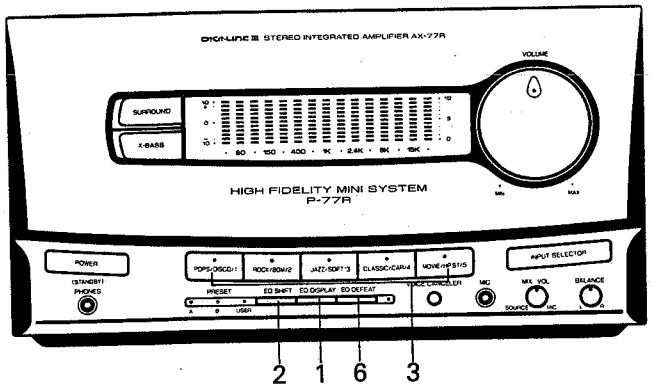
4. Press the VOICE CANCELER button to decrease only the voice in the music.

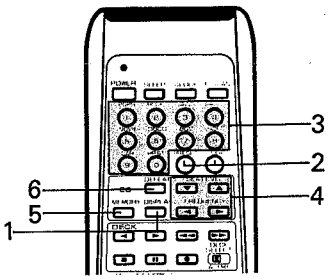
- Press again to cancel.

* Mic mixing recording can't function during dubbing.

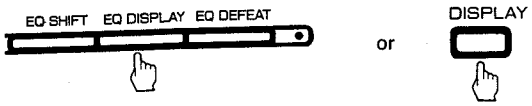
Operation of the Graphic Equalizer

You enjoy your favorite tone quality by 10 preset or 5 user modes to your individual taste.





1. A. Press the EQ DISPLAY button over 2 seconds to start demonstration.

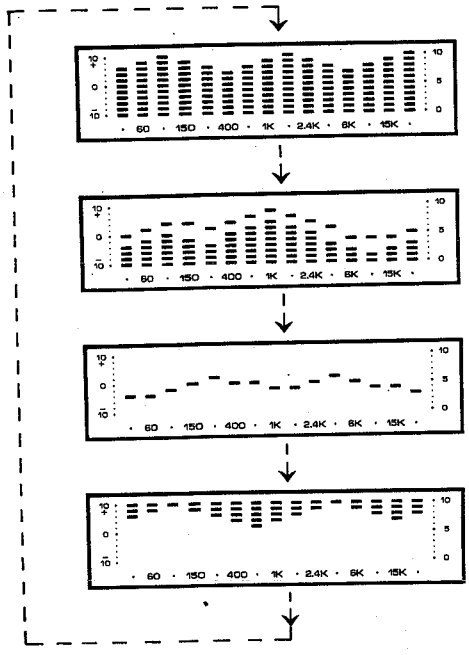


- After DEMO sign appears in the display, 4 EQ display and 10 preset and 5 user modes appear as follows and the sound of each mode is heard.

DEMO → 4 EQ display modes → 10 preset modes → 5 user modes → Volume down → Volume up

- Press any button of EQ buttons to cancel.

B. Each time the EQ DISPLAY button is pressed, the EQ display modes are changed as follows.



Bar spectrum mode

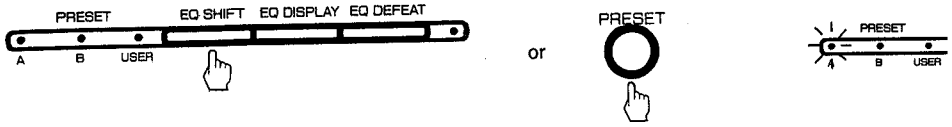
Peak-hold spectrum mode

Dot spectrum mode

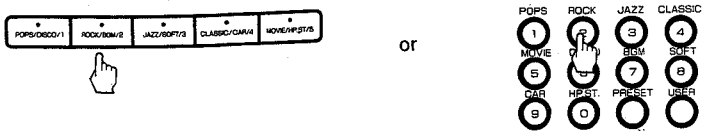
Reverse bar spectrum mode

I. WHEN YOU WANT ROCK (OR CAR) MODE

2. Select preset A (or B), then PRESET A (or B) indicator is on.

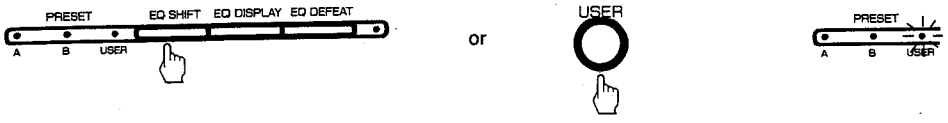


3. Press ROCK (or CAR) button.

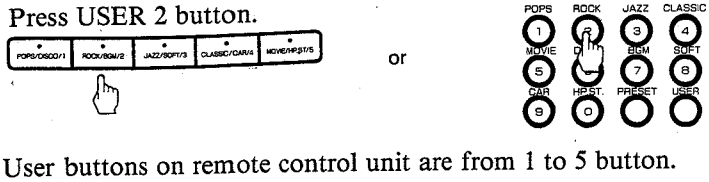


II. WHEN YOU WANT USER 2 MODE.

2. Select user mode, then USER indicator is on.

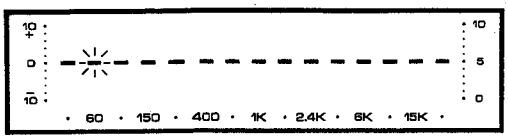


3. Press USER 2 button.



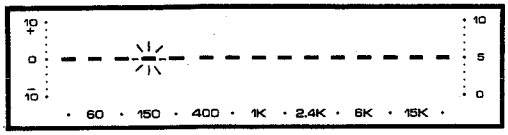
- User buttons on remote control unit are from 1 to 5 button.

4. Press any button of LEVEL UP/DOWN and FREQUENCY select buttons.



the level bar of 50 Hz flashes

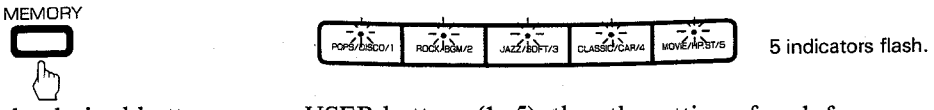
- After setting the desired level with ▼ or ▲, move to next frequency with ▶.



the level bar of 150 Hz flashes

- Set the desired level with ▼ or ▲.
- Complete to 15KHz in the same manner.

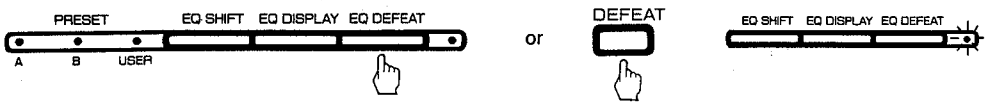
5. Press the EQ MEMORY button.



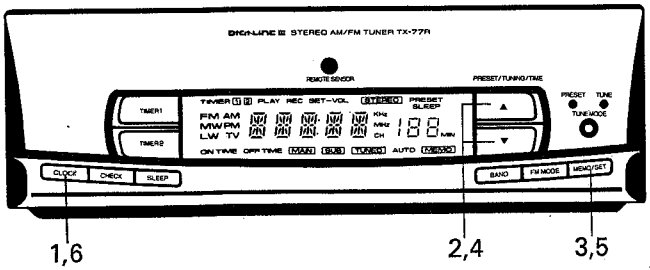
5 indicators flash.

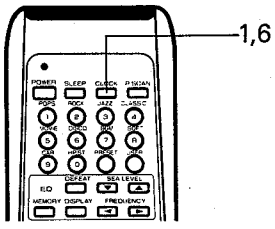
- Press the desired button among USER buttons (1~5), then the setting of each frequency is memorized.

6. When you want to enjoy the sound without passing through equalizer, press the EQ DEFEAT button, then the indicator is on.



Operation of the Tuner



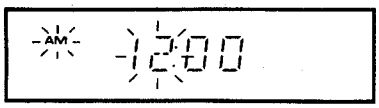


■ SETTING A CLOCK

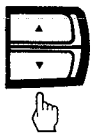
For example: When it is 1:15 P.M.

1. Press the CLOCK button over 3 seconds, then "AM" and "12" flash.

or

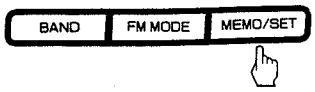


2. Set the hour.

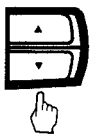


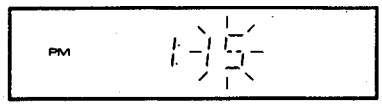
- The time of day is divided into A.M. and P.M.

3. Press the MEMO/SET button, then "00" flashes.

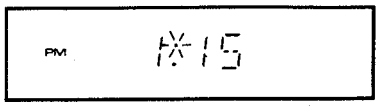


4. Set the minute.

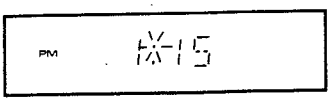




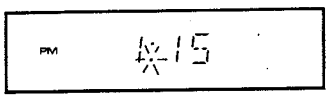
5. Press the MEMO/SET button to complete setting.



- The upper dot flashes at from 0 to 29 second and the lower dot flashes at from 30 to 59 second.

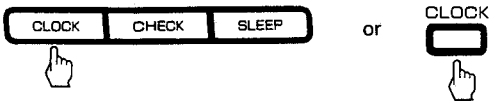


at from 0 to 29 second



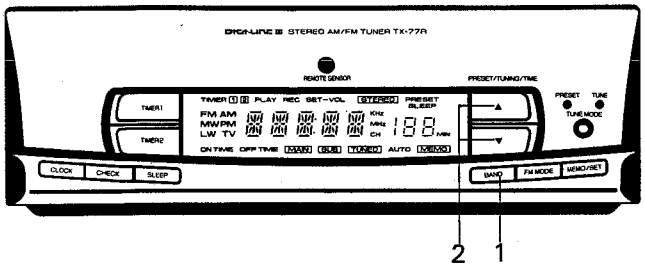
at from 30 to 59 second.

6. Press the CLOCK button to glance at the time during other function display.



- Press again to cancel.

- In the stand by mode, time appears in the display.



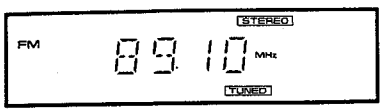
■ LISTENING TO THE BROADCASTS

1. Select the band, then TUNE indicator is on and band and frequency appear as follows.

- Each time the BAND button is pressed, the band is changed to FM or AM (MW or LW: for Europe Version Only).

I. WHEN YOU WANT AUTO TUNING

2. Press the TUNING buttons over 1 second, then stations can be searched and captured automatically towards higher or lower frequencies.



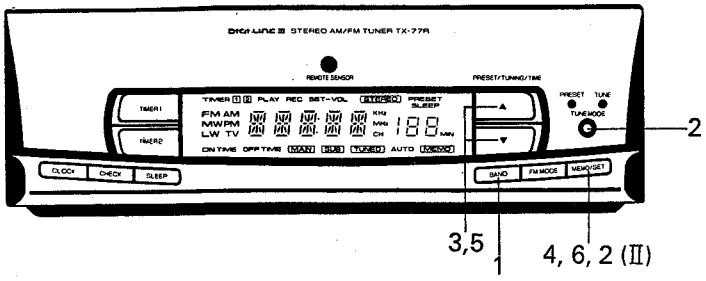
When a station is tuned in, "TUNED" is on and when it is a stereo broadcast, "STEREO" is on.

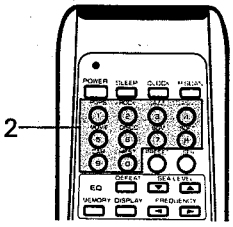
II. WHEN YOU WANT MANUAL TUNING

- In the case of weak reception, it may not be possible to capture stations by auto tuning.

2. Press the TUNING button instantly and repeatedly, then the frequency changes step by step.

- If the frequency of the station is reached, released the TUNING button.
- If you want other stations, try tuning again.





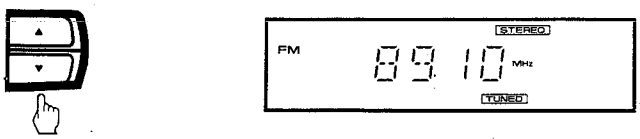
■ PRESETTING STATIONS

I. TO MEMORIZE STATIONS TO BE PRESET MANUALLY

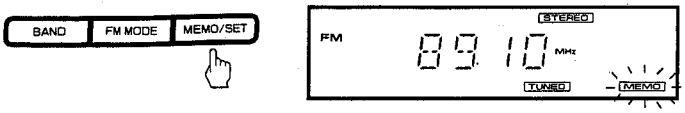
1. Press the BAND button.

2. Press the TUNE MODE button, then the TUNE indicator is on.

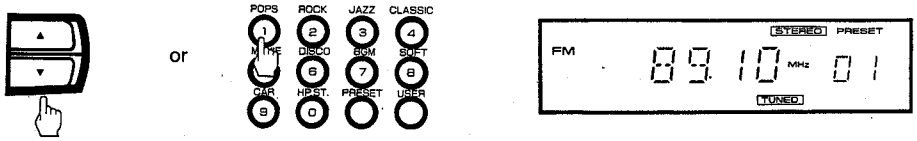
3. Select the station with the TUNING buttons.



4. Press the MEMO/SET button, then "MEMO" flashes.



5. Press the PRESET buttons or the pertinent number with the NUMERIC buttons within 5 seconds, then "PRESET" and "01" appear.



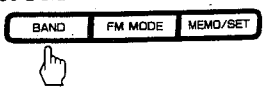
- If more than 5 seconds elapses after pressing the MEMO/SET button, start from the step 4 again.

6. Press the MEMO/SET button to memorize.

- In case of using the NUMERIC buttons, the station is memorized without the MEMO/SET button. In the same manner, up to 30 stations can be preset.
- When the desired number is selected with the NUMERIC buttons, if it is one digit number, press the pertinent number without pressing 0 and if it is two digit number, the second digit must be pressed within about 1.5 sec. after the first digit has been pressed.

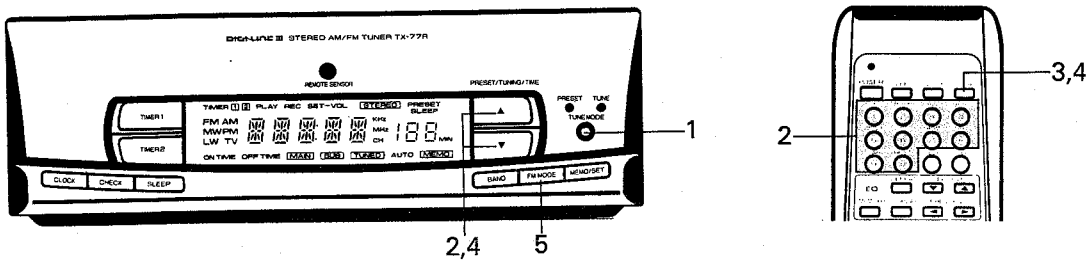
II. TO MEMORIZE STATIONS TO BE PRESET AUTOMATICALLY

1. Select FM with the BAND button.



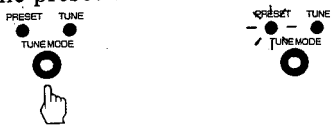
- It is available only for FM.

2. Press the MEMO/SET button over 2 seconds, then up to 30 stations are searched and memorized automatically.

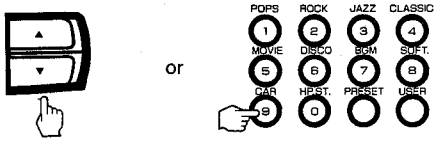


■ PRESET TUNING

1. Select the preset with TUNE MODE button, then the PRESET indicator is on.



2. Select the preset station you want with the PRESET or the NUMERIC buttons.

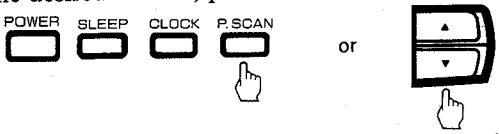


■ SCANNING PRESET STATIONS IN SEQUENCE

3. Press the PRESET SCAN button.

- The tuner starts scanning stations in the preset sequence and each station is received for 5 seconds.

4. At the desired station, press the PRESET SCAN button or the PRESET buttons to stop the scanning.



5. Press the FM MODE button to decrease noises, when there are noises during FM stereo broadcasts.

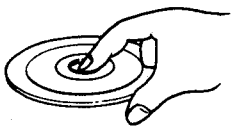
• If you want FM stereo broadcasts, press again.

Operation of the Compact Disc Player

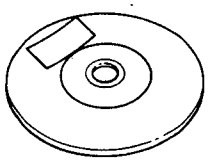
BEFORE OPERATION

• Only compact discs bearing this mark can be reproduced.

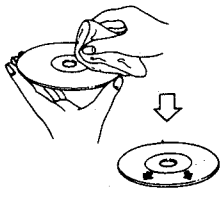
COMPACT
disc
DIGITAL AUDIO



* In handling a disc, hold it carefully with edges.

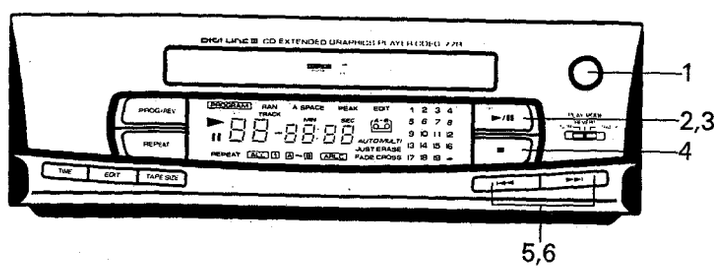


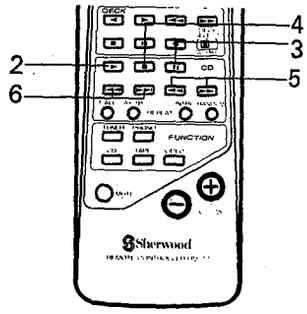
* Do not stick paper or write anything on the labelled surface.



* Fingermarks and dust on the recorded surface should be carefully wiped off with a soft cloth. Wipe straight from the inside to the outside of the disc.

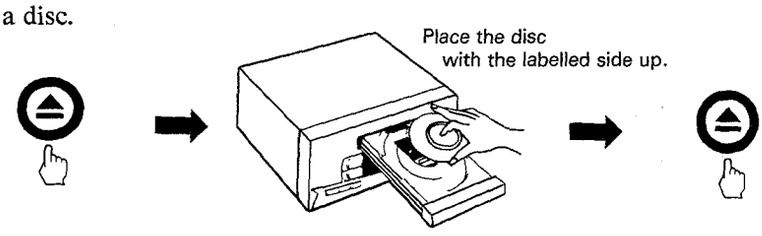
* Do not expose discs to direct sunlight or high humidity and temperature for extended periods.





■ PLAYING A DISC

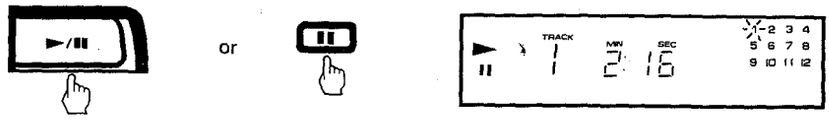
1. Load a disc.



• 8cm CD can be also used on the inside circle of the tray.

2. Play a disc.

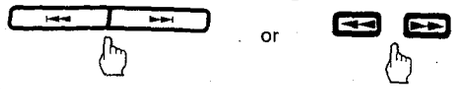
3. To pause playing temporarily



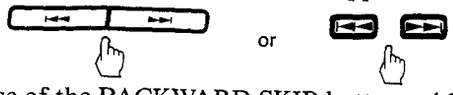
• Press again to restart playing.

4. To stop playing

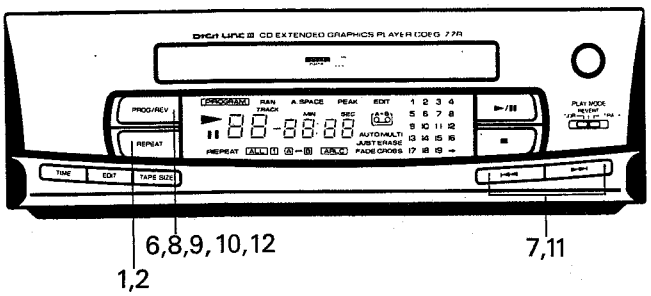
5. To listen to music from specific point, keep the FORWARD or the BACKWARD SEARCH button pressed and release at desired point.

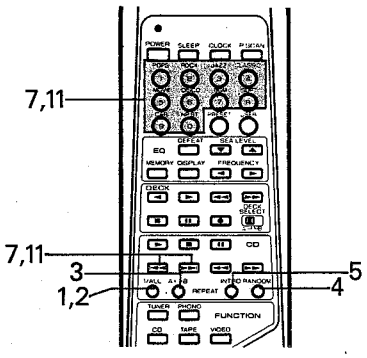


6. To listen to music from specific track, press the FORWARD or the BACKWARD SKIP button instantly and repeatedly until desired track appears.



• In case of the BACKWARD SKIP button, with first pressure, the beginning of the current track appears and with second pressure, the beginning of the previous track appears.

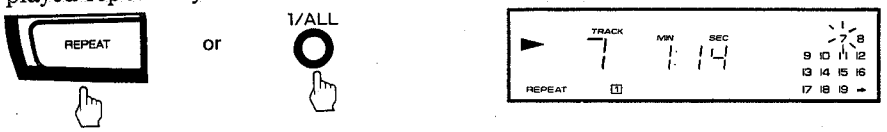




■ REPEAT MODE

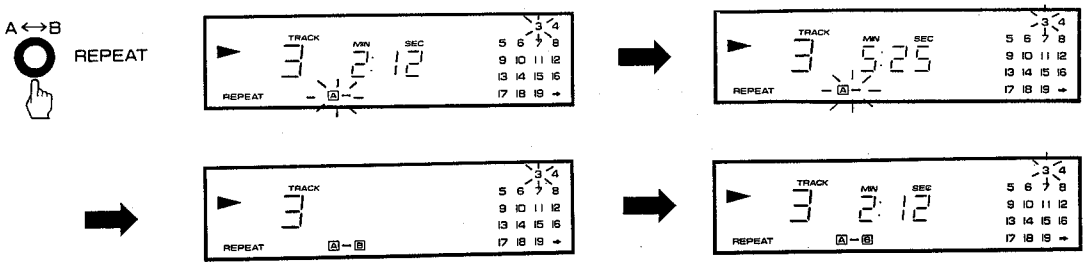
1. If the REPEAT button is pressed during play, all tracks of the disc are played repeatedly.

2. If the desired track is selected and the REPEAT button is pressed once more during play, the selected track is played repeatedly.



- Press once again to cancel.

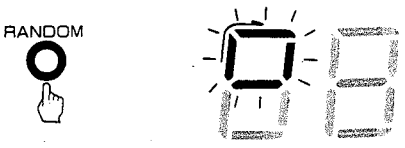
3. During play, press the A←→B REPEAT button at the beginning of the part you want and press again at the end of the part. Then the specific part is played repeatedly.



- Press again to cancel.

* During random play or program play, etc., only the all tracks repeat is available.

4. If you want to play a disc in random sequence, press the RANDOM PLAY button.



The small square appears clock-wise to show that the unit is searching a random track.

- Press again to cancel.

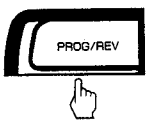
■ INTRO SCAN MODE

5. If the INTRO SCAN button is pressed, each track of the disc is played from its beginning for 10 seconds.

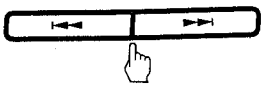
■ PROGRAM MODE

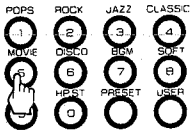
Maximum 30 tracks can be selected and programmed to play in any desired sequence. If you exceed 30 tracks, the "FULL" appears to remind you that the memory is full.

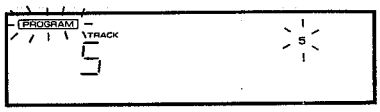
6. Press the PROGRAM button in the stop mode, then "PROGRAM" flashes.



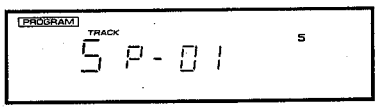
7. Select the desired track with the SKIP or the NUMERIC buttons, then the selected track number is shown.







8. Press the PROGRAM button.



- Repeat step 7 and 8 until the desired program is completed and press the PLAY/PAUSE button, then program play will start.
- If you select your desired track with the NUMERIC buttons, that track is programmed without the PROGRAM button.

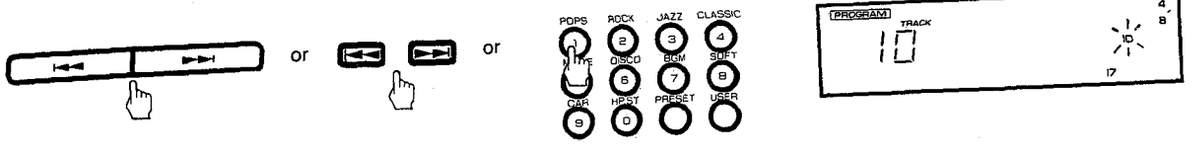
■ CHECKING THE PROGRAMMED TRACKS

9. Each time the REVIEW button is pressed, the programmed tracks will appear in the programmed sequence.

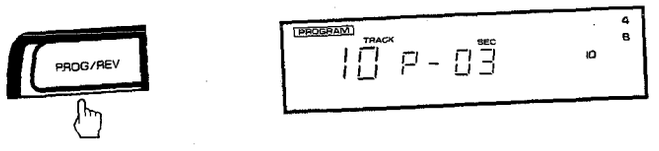
■ RECTIFYING ANY WRONG PROGRAMMED TRACK

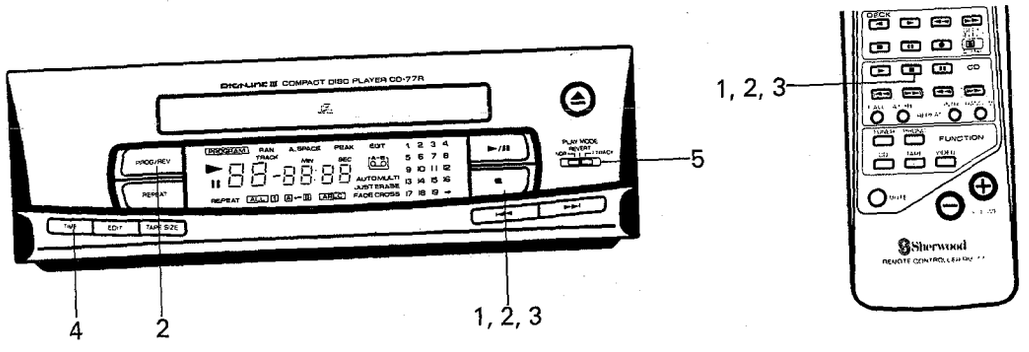
10. Find the any wrong programmed track by the REVIEW button, then the wrong programmed track number is shown.

11. Select the desired track, then the selected track number is shown.



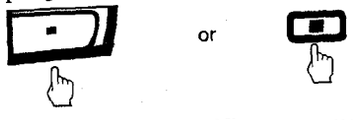
12. Press the PROGRAM button, then the selected track is programmed and the last programmed track is shown after a few seconds.



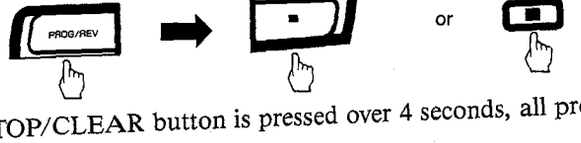


■ CLEARING THE PROGRAMMED TRACKS

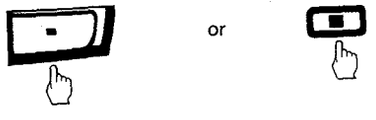
1. By pressing the STOP/CLEAR button instantly during programming or after completion of programming, the programmed tracks are cleared one by one in the reverse sequence.



2. If you want to clear any specific programmed track, find the track you want by the REVIEW button and press the STOP/CLEAR button.

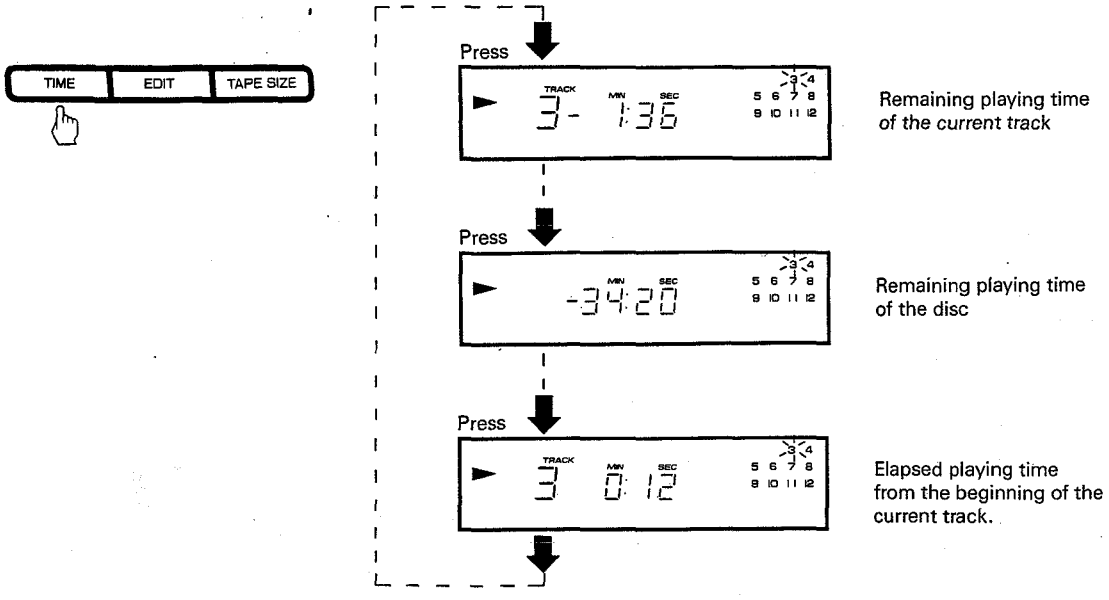


3. If the STOP/CLEAR button is pressed over 4 seconds, all programmed tracks will be cleared.



■ SELECTING TIME MODE

4. Press the TIME button to change into a different time display mode.



■ SELECTING PLAY MODE

5. A. When this switch is in the NOR position, the unit plays normally.

B. When this switch is in the REVERT position and you press the POWER button of the amplifier or leave the CD player stopped during playing the specific point of the disc, if you let the unit play again, it will start from that point.

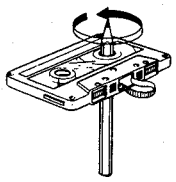
* In case of using the CD player with TIMER, the revert play is not operative.

C. When this switch is in the 1 TRACK position, the play pauses at the next track after each track has been played.

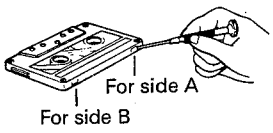
Operation of the Cassette Deck

BEFORE OPERATION

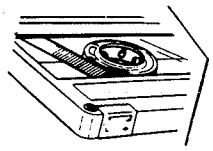
■ NOTES ON CASSETTE TAPE



* When there is slack in the tape, insert a pencil into the reel hole and wind the reel hub to remove slack.



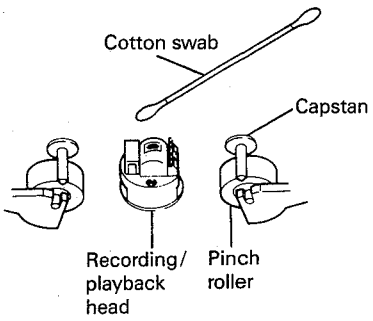
* After the recording has been finished, remove the tab to prevent the recorded contents from being erased or recorded on accidentally.



* To re-record after tabs have been removed, cover with adhesive tape.

* Do not store the tapes in direct sunlight or near equipment that generates heat. Keep the cassette tapes away from any magnetic fields.
* Do not touch the tape surface and store the tapes in their cases after use. Dust can cause contamination of the heads resulting in noise.

■ CLEANING THE HEAD SECTION



For the best condition of the deck, always keep the head (recording/playback/erase), capstan and pinch roller clean.

To clean them as follows.

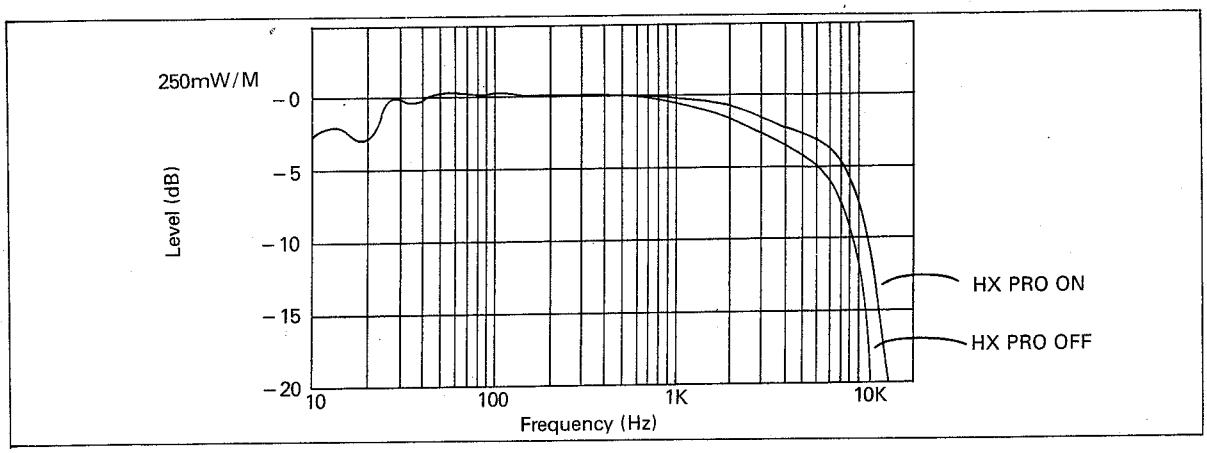
1. Open the cassette holder
2. Clean the heads with the cotton swab dipped in commercially available head cleaner.
3. Clean the capstan and pinch roller with another cotton swab dipped in commercially available rubber cleaner.

■ DEMAGNETIZING THE HEAD

When the recording/playback head is magnetized, the sound quality will be deteriorated.
In this case, demagnetize the head using a commercially available demagnetizer.

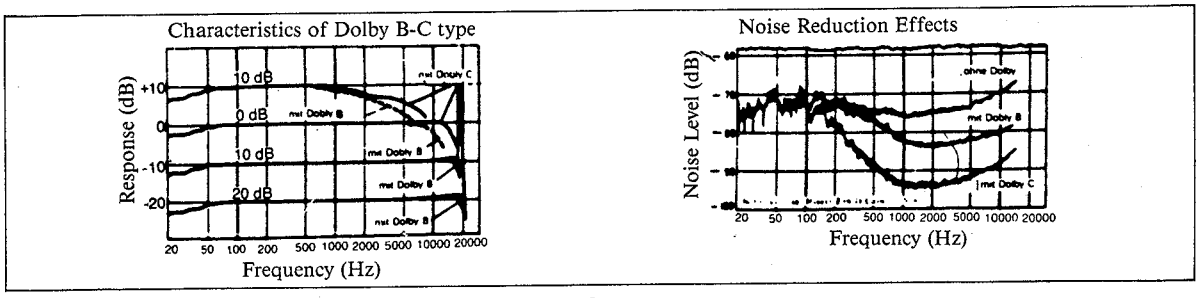
■ DOLBY HX PROFESSIONAL HEAD ROOM EXTENSION (DOLBY HX PRO)

1. Dolby HX PRO is professional recording bias system which are now available in some of home cassette recorders improving dynamic range and signal clarity for life-like sound quality.
   When recording audio signals which contain high-frequency components, these components influence the bias and decrease the high recording frequencies. (If the amount of bias is great, high frequencies are decreased, while on the other hand, if the amount of bias is small, high frequencies are increased, resulting in a corresponding increase in distortion.)
   The Dolby HX Pro system responds to high or low frequencies to regulate the oscillation of the bias level added to the recording head, thus providing a stable, effective bias to the audio signals being recorded. When an audio signal contains a large number of high-frequency components, the bias is held to a low value and deterioration of high frequencies is avoided, where as for low frequencies, the bias is added at a fixed rate Bias is thus added at the optimum rate for both high and low frequencies.
2. The unit incorporates the Dolby HX Pro system which automatically adjusts itself not only for normal, CrO_2, and metal position tapes but also for right and left channels independently. Since the system is automatically engaged during the recording process only, the audiophile can enjoy the full benefits of any tape without worrying about proper adjustment of switches and encoding/decoding controls.



■ PRINCIPLE OF DOLBY NR SYSTEM

The Dolby NR system functions so that it automatically increases recording levels of medium and high frequencies when the recording signal level is lower than the specified level (encoding), and automatically reduces the output level to the normal level during playback (decoding). In this way, the tape hissing noise is remarkably reduced without affecting the sound quality. The Dolby NR system used in your Tape Deck improves S/N ratio by about 5 dB at 1 KHz and about 10 dB at 10 KHz in B-type and by about 20 dB on the most frequency range in C-type. Furthermore C-type has the anti-saturation network which reduces the affects of high frequency saturation, improving high range frequency response.

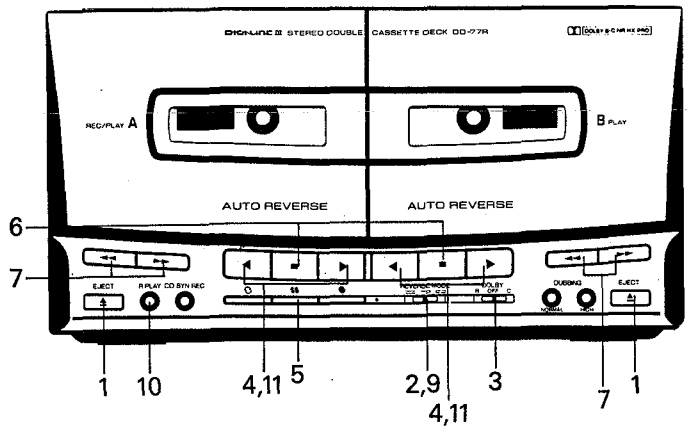


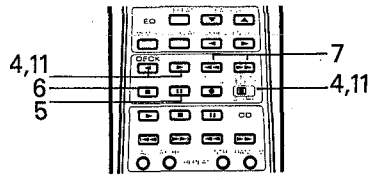
NOTE:

1. Dolby noise reduction and HX PRO headroom extension manufactured under license from Dolby Laboratories Licensing Corporation.
   HX PRO originated by Bang and Olufsen. "Dolby", the double-D symbol, and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.
2. The most commercially available recorded tapes with '▯▯' mark are recorded with Dolby B NR. Tapes recorded with Dolby C NR have '▯▯ C NR' mark.
3. Tapes recorded with Dolby B NR should be played back with Dolby B NR select switch set to B Type, and tapes recorded with Dolby C NR should be played back with Dolby NR select switch set to C Type. Tapes recorded without Dolby NR should be played back with Dolby NR off.

■ AUTO TAPE SELECTOR

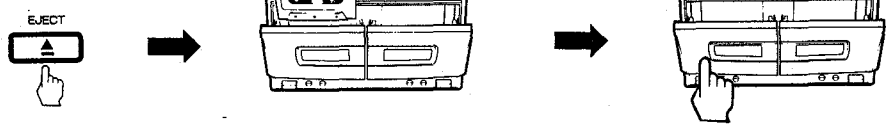
There are 3 kinds of tapes such as normal, CrO_2 and metal tape.
The unit automatically senses the kind of the loaded tape with auto tape selector and functions according to the characteristic of that tape during recording or playing.





■ PLAYING A TAPE

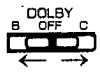
1. Load a tape.



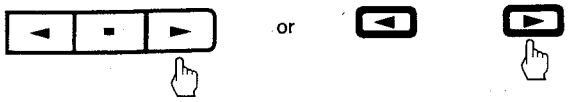
2. Select the reverse mode.

REVERSE MODE ⇄ : One side playing or recording
⇀ : SIDE A→SIDE B→STOP
↻: ┌→SIDE A→SIDE B→┐
└──────────────────┘
During recording or dubbing, SIDE A→SIDE B→STOP

3. Select the Dolby mode.



4. Play a tape.

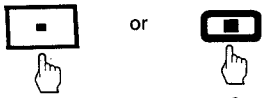


• In case of using remote control unit, first select the deck to be played

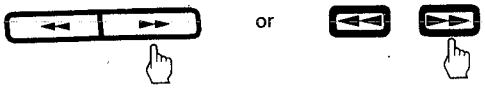
5. To pause playing temporarily

* It's available only for DECK A
• Press again to restart playing.

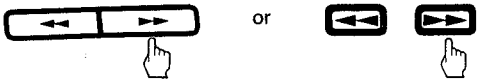
6. To stop playing



7. A. Press these buttons to fast forward or rewind the tape in the stop mode.



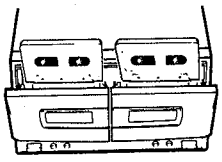
B. For AMS (Automatic Music Search) function that is provided for easy search of music, press these buttons to move to the beginning of the current music, the previous or the next music during playing.



• When the blank is over 4 seconds between one music and the other music, the AMS function can operate.

■ RELAY PLAY

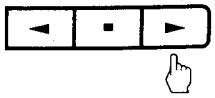
8. Load tapes into DECK A and B.



9. Select the reverse mode.

10. Press the RELAY PLAY button.

11. Press the PLAY button of DECK A or B.

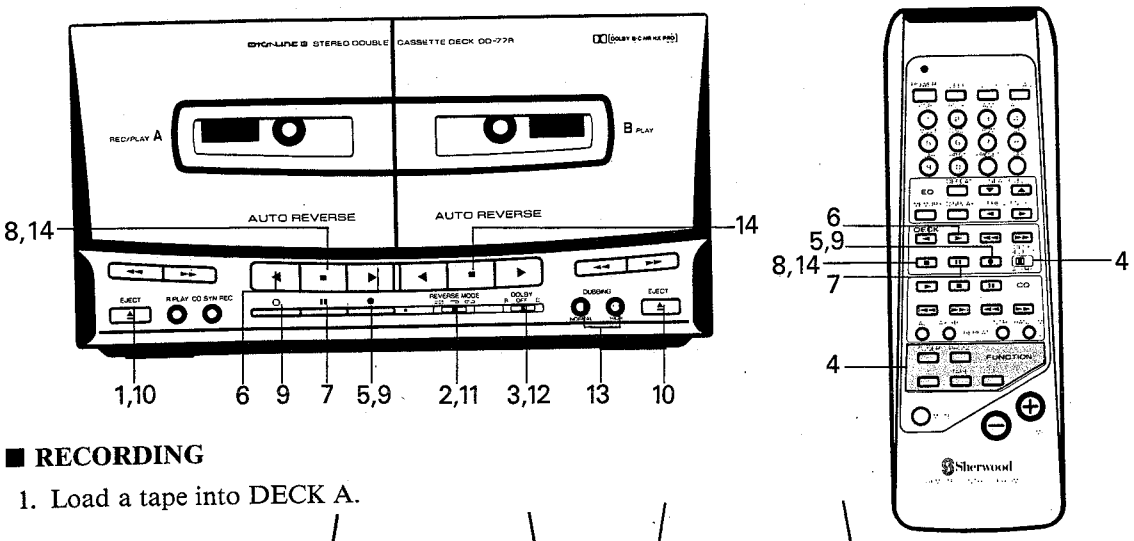


* Relay play according to reverse modes.

⇄ : A. F. SIDE of DECK A or B → F. SIDE of DECK B or A → STOP
B. B. SIDE of DECK A or B ↑

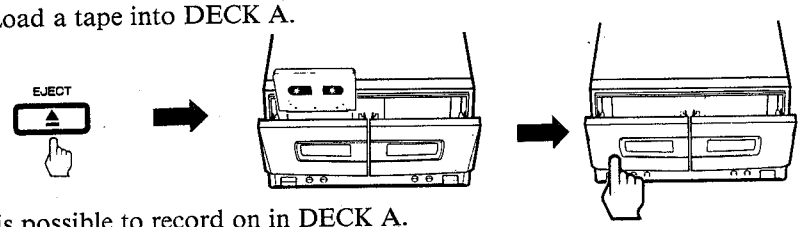
⇉ : A. F. SIDE of DECK A or B → B. SIDE of DECK A or B → F. SIDE of DECK B or A → B. SIDE of DECK B or A → STOP
B. B. SIDE of DECK A or B ↑

↻ : A. F. SIDE of DECK A or B → B. SIDE of DECK A or B → F. SIDE of DECK B or A → B. SIDE of DECK B or A
B. B. SIDE of DECK A or B ↑



■ RECORDING

1. Load a tape into DECK A.



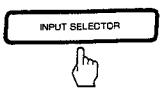
- It is possible to record on in DECK A.
- The recording level is adjusted automatically.

2. Select the reverse mode.

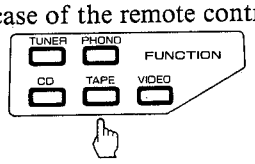
: One side recording
or : Both sides recording.
When starting to record with ◀, one side recording.

3. Select the Dolby mode.

4. Select the source to be recorded. In case of the remote control unit, set to DECK A.



or

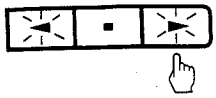


and

5. Press the RECORD button.

or

6. Press the PLAY button according to the tape side to be recorded, then recording starts.



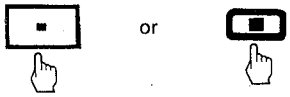
or

* When the PLAY indicators are as follows.
-◀ ▶-: Both sides can be recorded
◀ ▶-: Front side can be recorded
-◀ ▶ : Back side can be recorded

7. To pause recording temporaily

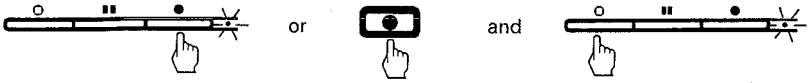
• Press again to restart recording.

8. To stop recording.



■ RECORDING A 4 SECOND BLANK FOR THE AMS

9. Press the BLANK RECORD button after pressing the RECORD button.

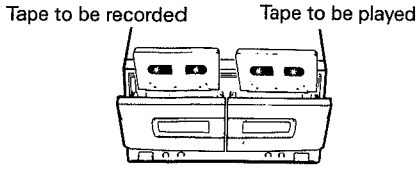


• If a 4 second blank recording is completed,it switches to the pause mode.

■ DUBBING

Dubbing is the function of copying a previously recorded tape onto another tape.

10. Load tapes into DECK A and B.



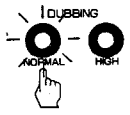
11. Select the reverse mode.

: One side dubbing
or : Both sides dubbing

12. Set to the OFF position.

* During dubbing, the tape is recorded in accordance with the recording condition of the tape to be played regardless of the Dolby mode.

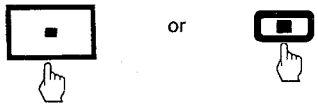
13. Select the dubbing speed.



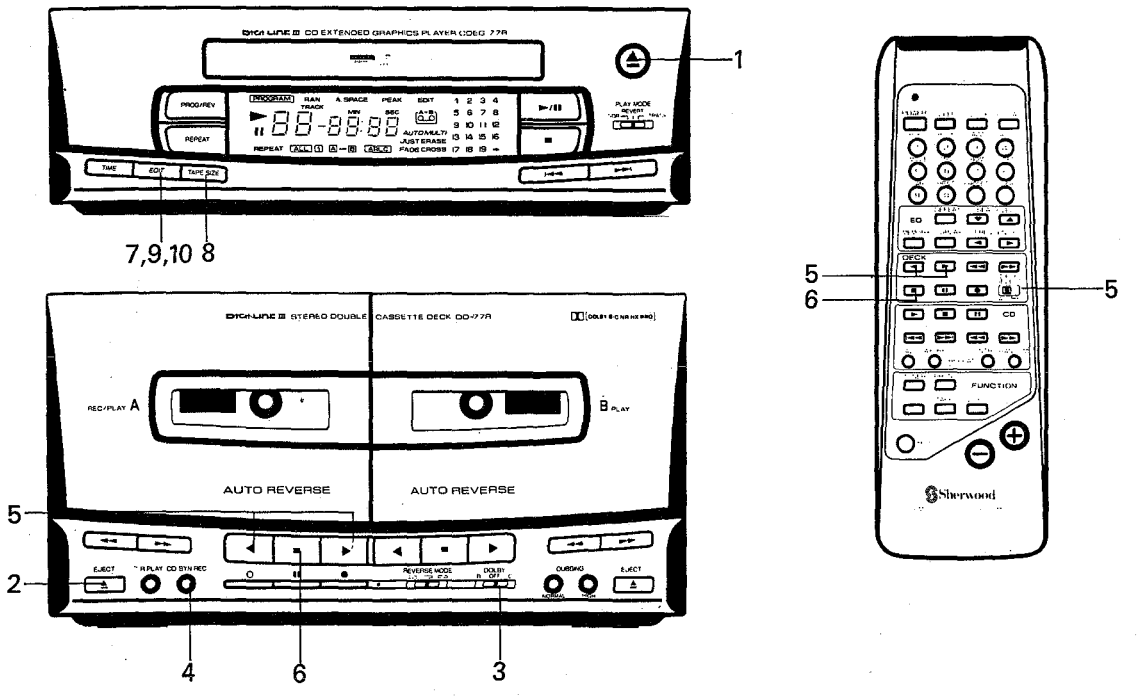
NORMAL : Normal playing speed
HIGH : 1.5 times as fast as normal playing speed.

• For the better sound quality, press the NORMAL button.

14. Press any STOP button to stop dubbing.



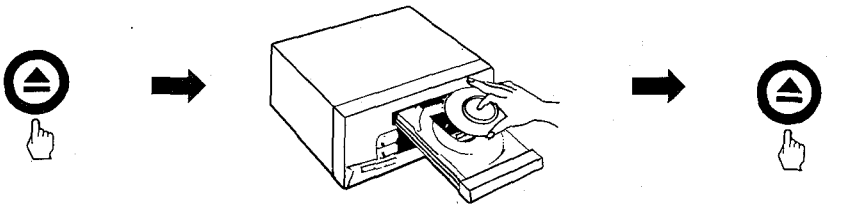
* During dubbing, it is possible to listen to other sources and if any button of the deck except for STOP button is pressed, the function doesn't work and "LOCK" appears in the display.



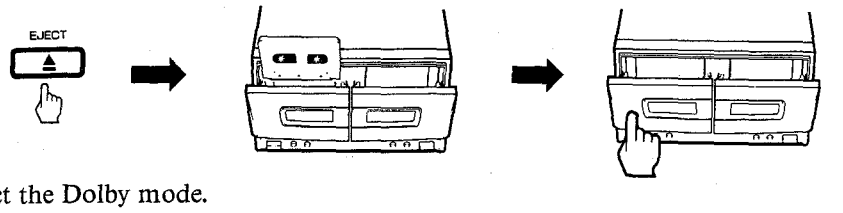
■ CD SYNCRO RECORDING

I. NORMAL SYNCRO RECORDING

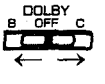
1. Load a disc.



2. Load a tape into DECK A.

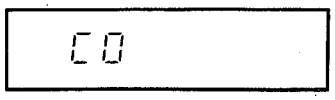


3. Select the Dolby mode.



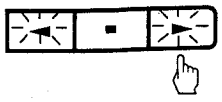
* During CD syncro recording, both sides of the tape are recorded continuously regardless of the reverse mode. Therefore, when side A is changed into side B, it can leave a part of the track being played blank.

4. Press the CD SYN. REC button.



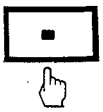
"CD" appears in the display.

5. Press the PLAY button according to the tape side to be recorded.



- If 4 seconds elapses after recording starts, the CD player start to play for normal syncro recording.

6. To stop recording.

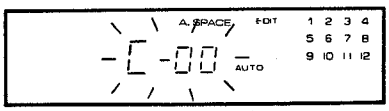


- During recording, you can listen to other sources.

II. AUTO EDIT SYNCRO RECORDING

In this mode, the tracks to be recorded are edited automatically according to the playing time of the cassette tape such as C-46, C-54, C-60, C-74 or C-90.

7. In the stop mode, press the EDIT button after loading a disc.

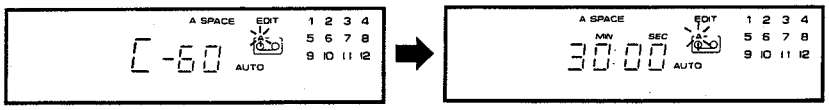


- In the edit mode, the auto space function that leaves a space of 4 seconds between the tracks operates automatically.

8. Select the playing time of tape to be recorded.

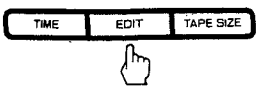
- Each time the TAPE SIZE button is pressed, the playing time of the cassette tape is changed as follows.

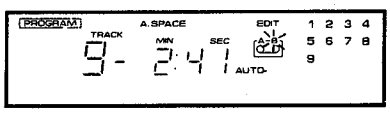
→C-46→C-54→C-60→C-74→C-90→



Side A indicator flashes and the playing time of one side appears.

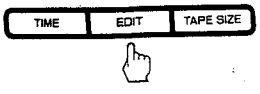
9. Press the EDIT button, then the tracks to be recorded in the side A are edited automatically.

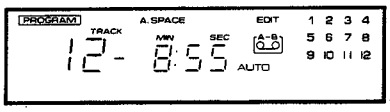




After completing the edit of the side A, side B indicator flashes.
−2:41 means the remaining time of the side A.

10. Press the EDIT button again, then the tracks to be recorded in the side B are edited automatically.

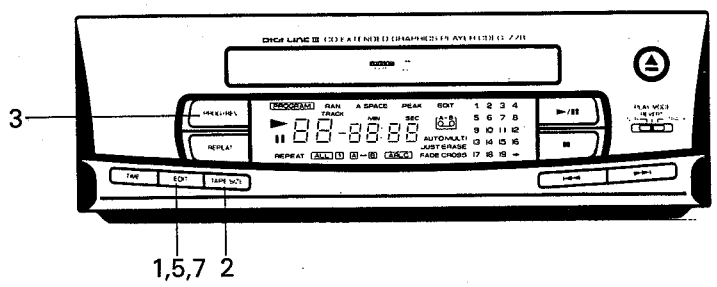




−8:55 means the remaining time of the side B.

- Press the EDIT button twice to cancel.

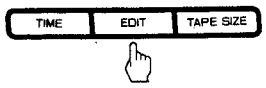
11. If the edit of the side A and B is completed, continue to execute the procedure from step 2 in the normal syncro recording.

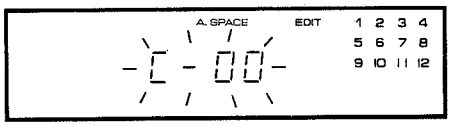


III. MANUAL EDIT SYNCRO RECORDING

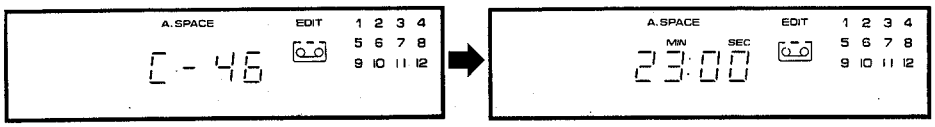
In this mode, the tracks you want are edited manually according to the playing time of the cassette tape such as C-46, C-54, C-60, C-74, or C-90.

1. In the stop mode, press the EDIT button twice after loading a disc.

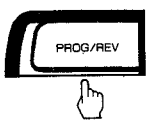


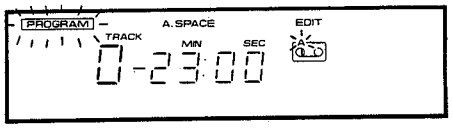


2. Select the playing time of the tape to be recorded.



3. Press the PROGRAM button.



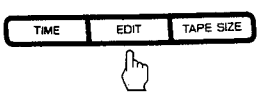


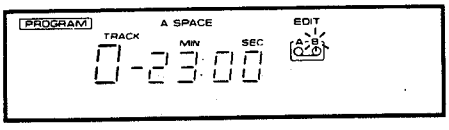
–23:00 means the available editing time of the side A

4. Repeat step 7 and 8 in the program mode (page 22) until the editing time of the side A is completed.

- If the remaining time indicator "–" disappears during editing, it means that the editing time of the side A is more than 23 minutes.
  Therefore refer to "clearing the programmed tracks" (page 23) and clear the edited tracks and edit other tracks you want instead of the cleared tracks again until the editing time of the side A is less than 23 minutes.

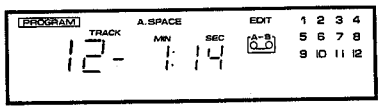
5. Press the EDIT button after completing the edit of the side A, then the side B indicator flashes.





6. Repeat the above step 4 until the edit of side B is completed.

7. Press the EDIT button again after completing the edit of the side B.



8. If the edit of the side A and B is completed, continue to execute the procedure from step 2 in the normal syncro recording (page 31).

* During edit syncro recording, if the tracks of the side A have been played, it switches to the pause mode in the side B and if the recording of the side A has been completed, the recording of the side B starts and if 4 seconds elapses, the tracks of the side B starts to be played automatically.

■ MIXING THE SOUND INPUT WITH A MICROPHONE WITH THE SOUND OF A MUSIC SOURCE AND RECORDING THEM TOGETHER. (OPERATION OF THE OPTIONS)

I. WHEN A MUSIC SOURCE IS A CASSETTE TAPE

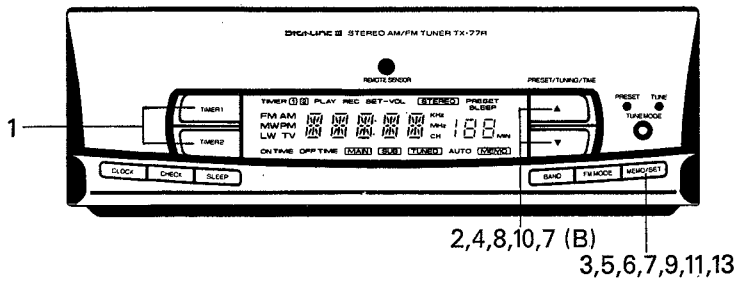
- After operation of the options (page 11), load the tape to be recorded into DECK A and the tape to be played into DECK B and press the PLAY button of the DECK B and press the RECORD and the PLAY button of the DECK A. Then recording will start.

II. WHEN A MUSIC SOURCE IS A CD

- After operation of the options (page 11), load the tape to be recorded into DECK A and play the CD and press the RECORD and the PLAY button of the DECK A. Then recording will start.

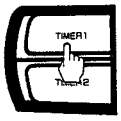
Operation of the Timer

There are 2 timers that is available for playback or recording at the time you want.
Before use, check if the current time of the clock is exact. If not, first set a clock (page 15).



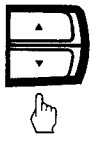
■ RESERVATION FOR PLAYBACK AND RECORDING

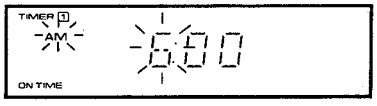
1. When the power is on, press the TIMER 1 or 2 button for about 3 seconds.



"AM" and "12" flash.
"ON TIME" means the beginning time of playback or recording

2. Set the hour of on time you want.

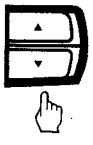




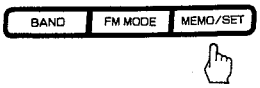
3. Press the MEMO/SET button.

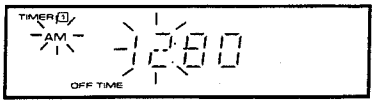
"00" flashes

4. Set the minute of on time you want.



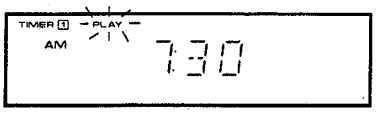
5. Press the MEMO/SET button.





"OFF TIME" means the ending time of playback or recording

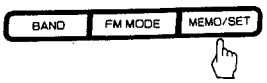
6. After repeating step 2, 3 and 4 to set the hour and minute of off time you want, press the MEMO/SET button.



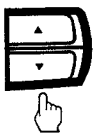
"PLAY" flashes

I. A. IN CASE OF LISTENING TO THE BROADCAST

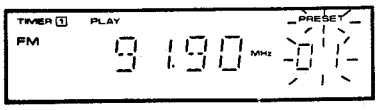
7. Press the MEMO/SET button.



8. Select the tuner.

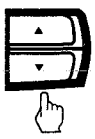


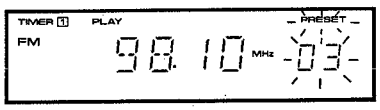
9. Press the MEMO/SET button.



The frequency of the preset station appears

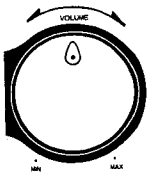
10. Select the station to be received.





11. Press the MEMO/SET button.

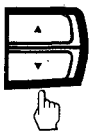
12. Adjust the volume.

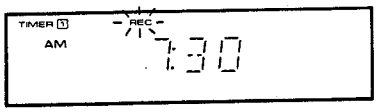


13. Press the MEMO/SET button, then the memorized contents appear in sequence.

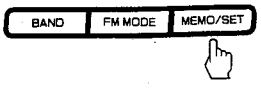
I. B. IN CASE OF RECORDING THE BROADCAST YOU WANT

7. After selecting the recording mode with the TIME button, press the MEMO/SET button.

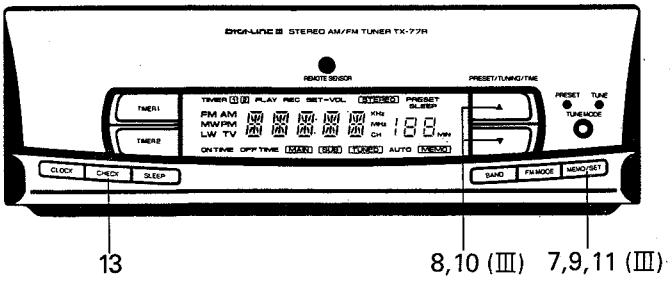




"REC" flashes



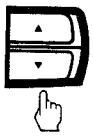
8. Repeat the above step 10~13 and load the tape to be recorded into DECK A.



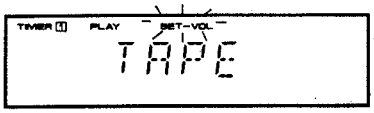
II. IN CASE OF PLAYBACK OF THE CASSETTE TAPE

7. Press the MEMO/SET button.

8. Select the tape.



9. Press the MEMO/SET button.

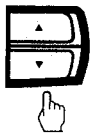


10. Repeat the step 12 and 13 (page 36) and load the tape to be recorded into DECK A.

III. IN CASE OF PLAYBACK OF THE CD

7. Press the MEMO/SET button.

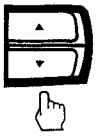
8. Select the CD.



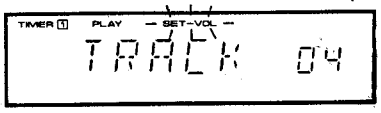
9. Press the MEMO/SET button.

Track number flashes

10. Select the track number to be played.



11. Press the MEMO/SET button.



Track number "04" means that play will start from track number "04".

12. Repeat the step 12 and 13 (page 36) and load the disc.

13. Press the CHECK button to check the reserved contents, then each reserved content appears for 3 seconds in the display.

- In the same manner, the other timer can be used for reservation.

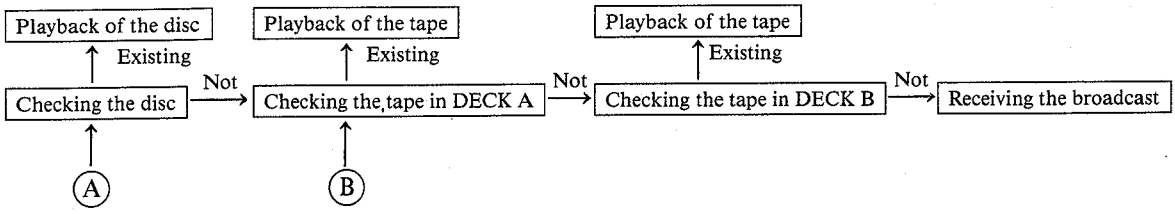
* To use the timer function, leave "TIMER 1" or (and) "TIMER 2" on in the display with the TIMER buttons.

* If timer indicators are off in the display, the timer function doesn't work.

- When you made a reservation for playback of the cassette tape or the CD and forgot to load the tape or the disc, playback will work as follows.

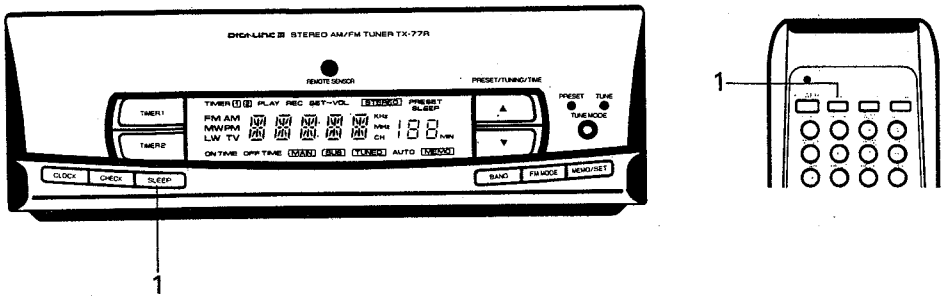
A. In case of playback of the CD

B. In case of playback of the cassette tape



- When you made a reservation for recording the broadcast and forgot to load the tape into DECK A, you will listen to the broadcast without recording.

* For operating the timer, it should be in the stand by mode before the beginning time.



■ SLEEP TIMER

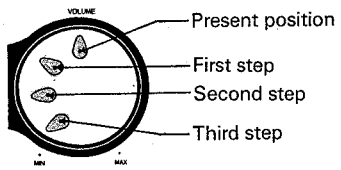
When the sleep timer is working, the display dimmer function and the auto volume down function work together.

* DISPLAY DIMMER FUNCTION

- If the SLEEP button is pressed, the displays of the system dim automatically.

* AUTO VOLUME DOWN FUNCTION

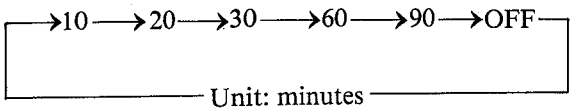
- When the sleep timer is working, the volume decreases automatically by 3 steps with the passing of time.

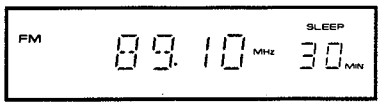


- If you adjust the volume at your option during operating the sleep timer, the unit continues to maintain the adjusted volume.

1. Select the sleep time during listening to the music.

- Each time the SLEEP button is pressed, the sleep time is changed as follows.





The time in the display is the remaining sleep time.

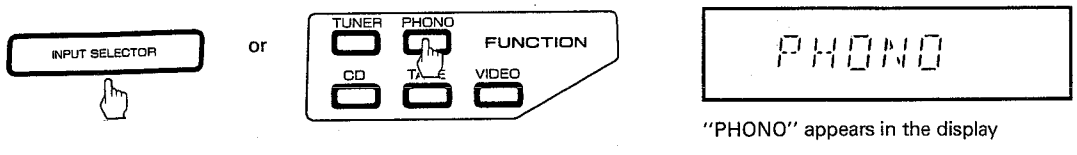
- Press the SLEEP or the POWER button to cancel.
- When the timer 1 or 2 is working, the sleep timer doesn't work.

Operation of the Other Equipments

Before use, refer to the other equipments (page 4) and check if the related cords are connected firmly and correctly.

■ TURN TABLE

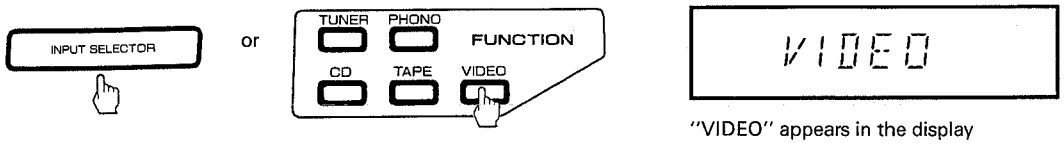
• Select the phono with the INPUT SELECTOR button(s) and play the record.



"PHONO" appears in the display

■ VCR

• Select the video with the INPUT SELECTOR button(s) and play the video cassette tape.



"VIDEO" appears in the display

Troubleshooting Guide

If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or our service organization.

*** REMOTE CONTROL UNIT**

PROBLEM	POSSIBLE CAUSE	REMEDY
No operation	• Batteries are exhausted. • The remote control unit is too far away from the main system, controling angle is too large, or there is an obstacle in between. • System connections are not correctly.	• Replace with new batteries. • Operate the remote control unit within the operative range. • Connect all cords correctly.

*** AMPLIFIER**

PROBLEM	POSSIBLE CAUSE	REMEDY
No power	• The power cord is not plugged. • The POWER button is not pressed.	• Plug the power cord into the AC outlet. • Press the POWER button to ON.
No sound	• The volume is adjusted to minimum level. • The MUTE button is pressed. • The speaker cords are not connected. • The headphones are plugged.	• Adjust the volume. • Press again to cancel. • Connect them firmly and correctly. • Unplug the headphones.
Sound from one of the speakers	• The speaker cord is not connected. • The BALANCE knob is set to an extreme position.	• Connect it firmly and correctly. • Adjust the L/R balance.

*** COMPACT DISC PLAYER**

PROBLEM	POSSIBLE CAUSE	REMEDY
No playback	• There is no disc. • The disc is not loaded with the labelled side up. • It is in the pause mode. • The disc is dirty or scratched.	• Load a disc. • Load it with the labelled side up. • Cancel the pause mode. • Clean it or load another disc.
Skipping sound or tracks	• The disc is dirty or scratched.	• Clean it or load another disc.
No programming	• The programming procedure is not correct. • The memory was already full of 30 tracks.	• Try to program again. • Check the number of the programmed tracks.

*** TUNER**

PROBLEM	POSSIBLE CAUSE	REMEDY
No receiving the stations	• No antenna is connected. • The broadcast band is not set properly. • The frequency of the desired station is not turned.	• Connect an antenna. • Set the broadcast band properly. • Tune the frequency of the desired station.
No receiving the preset station	• The preset station belongs to a frequency that cannot be received. • The preset memory was cleared because the power cord had been unplugged or the electricity had failed over 15 days	• Preset a station with a receivable frequency. • Preset the station again.
Interference	• Noise related to ignition noise of an automobile. • Noise related to an influence from an electric appliance. • Noise related to a near by TV set.	• Install the outdoor antenna apart from the road. • Turn off the power of the appliance. • Install the system more apart from the TV set.
Inability of stereo broadcast	• Very weak antenna input signal.	• Install the outdoor antenna. • In areas remote from the transmitter, a 5 to 8 element antenna designed exclusively for FM is suggested.

*** CASSETTE DECK**

PROBLEM	POSSIBLE CAUSE	REMEDY
No sound	• It is in the pause mode. • A non-recorded tape is being played. • The head is dirty.	• Cancel the pause mode. • Play a recorded tape. • Clean the head.
Distorted sound	• The head is dirty. • The tape is stretched or winkled.	• Clean the head. • Play another tape.
No recording	• The tabs have been removed.	• Cover with adhesive tape.
Vibrating sound	• The capstans or pinch rollers are dirty. • The tape is irregularly wound.	• Clean the capstans or pinch rollers. • Wind the tape regularly by fast forwarding, rewinding or playing it fully from one reel to another.

Specifications

*** AMPLIFIER**

Power Output Continuous RMS at 6 ohms,
THD 0.3% at 1KHz (Europe Version) ..... 50W+50W (45W+45W)
Input Sensitivity 6 ohms at 1KHz
Video 250mV
Phono 3mV
Graphic Equalizer Controls
60Hz, 150Hz, 400Hz, 1KHz, 2.4KHz, 6KHz, 15KHz ..... ±10dB
Power Consumption ..... refer to Rear Panel
Dimensions (W×H×D) ..... 235×120×240mm (9¼×4¾×9½ in)
Weight (Net) ..... 5 Kg (2.3 lb)

*** COMPACT DISC PLAYER**

Frequency Response ..... 20~20,000Hz, ±0.5dB
Signal to Noise Ratio 98dB
Dynamic Range 93dB
Dimensions (W×H×D) ..... 235×73×240mm (9¼×2⅞×9½ in)
Weight (Net) ..... 2 Kg (0.9 lb)

*** TUNER**
FM SECTION

	USA/ Canada	Australia/ Europe
Tuning Range	87.50~107.90MHz	87.50~108.00MHz
Scanning Frequency Interval	200KHz	50KHz

Usable Sensitivity IHF at S+N+D/N+D=30dB 1.5μV
Frequency Response ..... 30Hz~15,000Hz ± 1.5dB

AM (MW) SECTION

	USA/ Canada	Australia/ Europe
Tuning Range	520~1710KHz	522~1611KHz
Scanning Frequency Interval	10KHz	9KHz

Usable Sensitivity IHF at S+N/N=20dB, loop antenna 800μV

LW SECTION (FOR EUROPE VERSION ONLY)

Tuning Range ..... 153~279KHz
Scanning Frequency Interval 9KHz
Usable Sensitivity IHF at S+N/N=20dB, loop antenna 1200μV
Dimensions (W×H×D) ..... 235×73×240mm (9¼×2⅞×9½ in)
Weight (Net) ..... 1.5 Kg (0.7 lb)

*** CASSETTE DECK**

Tape Speed		4.76 cm/sec.
Frequency Response		
−20dB REC	Normal tape	40~16,000Hz, ±3dB
	CrO_2 tape	40~16,000Hz , ±3dB
	Metal tape	40~16,000Hz, ±3dB
Wow & Flutter		0.15% (JIS), 0.25% (DIN)
Dimensions (W×H×D)		235×120×240mm (9¼×4¾×9½ in)
Weight (Net)		3 Kg (1.4 lb)

NOTE: Design and specifications are subject to change without notice for improvement.